Version 2.1
Effective as of 06/15
Translation of original instruction

# Instruction manual

## IT Infrastructure

## IRF2000 series

adstec
Industrial IT

# Table of Contents

**1 Notes ... 3**

**1.1 General remark ... 3**
**1.2 Limitation of liability ... 3**
**1.3 Relevant device documentation ... 3**

**2 Safety instructions ... 4**

**2.1 Structure of safety instructions ... 4**
**2.2 Graduation of risk level ... 4**
**2.3 Explanation of used symbols ... 4**
**2.4 Symbols ... 5**
**2.5 Data, figures and modifications ... 5**
**2.6 Trademarks ... 5**
**2.7 Copyright ... 5**
**2.8 Standards ... 6**

**3 Operating and safety instructions ... 7**

**3.1 Safety instructions ... 8**
**3.2 Operating location ... 8**
**3.3 Damage due to improper use ... 9**
**3.4 Warranty / repairs ... 9**
**3.5 Intended use ... 9**
**3.6 Improper use ... 9**

**4 Introduction ... 10**

**4.1 Cut & Stop ... 10**
**4.2 Alarming ... 10**
**4.3 Eventlog ... 10**
**4.4 UMTS modem ... 10**
**4.5 Equipment versions ... 11**
**4.6 Scope of delivery ... 11**
**4.7 Environmental conditions ... 11**

**5 Assembly ... 12**

**5.1 External dimensions IRF22xx ... 12**
**5.2 External dimensions IRF26xx ... 13**
**5.3 Mounting options ... 14**
5.3.1 Table mounting ... 14
5.3.2 Wall mounting ... 14
5.3.3 Top-hat rail mounting ... 15

**6 System features ..... 16**

**6.1 General LED status display ..... 16**
6.1.1 PWR / CUT & ALARM / VPN 3G ..... 17
**6.2 Operational LED status indicators ..... 18**
6.2.1 Behaviour of the status indicators during the boot-up process ..... 18
6.2.2 Behaviour of the status indicators when resetting to default settings ..... 18
6.2.3 Behaviour of the status indicators during a firmware update ..... 18
**6.3 Interface overview IRF22xx ..... 19**
**6.4 Interface overview IRF26xx ..... 20**
6.4.1 POWER SUPPLY 24V DC ..... 21
6.4.2 LAN (RJ45) ..... 22
6.4.3 WAN (RJ45) ..... 22
6.4.4 VPN ..... 22
6.4.5 CUT & ALARM ..... 23
6.4.6 SERIAL INTERFACE COM (RS232) ..... 23
6.4.7 USB CONNECTIONS ..... 23
6.4.8 SMARTCARD READER IN ACCORDANCE WITH ISO 7816 ..... 24

**7 Putting into operation ..... 25**

**7.1 Initial configuration ..... 25**
**7.2 Manual configuration of the network adapter ..... 26**
**7.3 Settings for use with Internet Explorer 8 ..... 26**
**7.4 Calling up the device web interface ..... 27**

**8 Technical details ..... 28**

**9 Service & support ..... 29**

**9.1 ads-tec support ..... 29**
**9.2 Company address ..... 29**

# 1 Notes

## 1.1 General remark

This instruction manual is intended to ensure safe and efficient handling and operation of IT Infrastructure products.

The instruction manuals must be read carefully by personnel before commencing any type of work.

All of the safety notices and handling instructions given in the manual must be obeyed in order to ensure that work is carried out safely.

Operation of the system is subject to the laws and regulations which are applicable in the respective country at national, federal, European and international level.

The generally accepted rules of technology, usually in the form of standards, directives, regulations, conditions and technical rules specified by national and federal organisations as well as trade associations and committees for the field of specialisation concerned, shall apply.

Figures used in this instruction manual are provided for basic understanding and may differ from the actual design.

The operator/operating company is independently responsible for compliance with and observance of any subsequently introduced technical innovations or new legal requirements, as well as for all usual obligations of the operator/operating company.

The original version of this instruction manual was written in German. All non-German versions of this instruction manual are translations of the German instruction manual.

## 1.2 Limitation of liability

ads-tec GmbH shall not be liable for personal injury, property damage or damage caused to the product as well as consequential damage that is/was the result of non-compliance with this instruction manual, improper use of the product, repairs and other actions on the product by unqualified specialists and specialists not certified by ads-tec GmbH, or that is/was the result of using unapproved replacement parts.

## 1.3 Relevant device documentation

The following documents are decisive to unit setup and operation:

Instruction manual:

Contains information for installation, commissioning and operation of the device along with technical data of the device hardware.

Website

You can download drivers, software, user manuals, leaflets and flyers from the **Download** section of our website www.ads-tec.de.

# 2 Safety instructions

## 2.1 Structure of safety instructions

The signal word classifies the hazard.
Reference to the type/consequences and source of the hazard is made underneath the signal word.
Instructions for preventing the hazard are identified by an arrow (➡).

**⚠ SIGNAL WORD**

**Type/consequences of hazard**!
- Source of hazard
➡ Measures to prevent hazard

## 2.2 Graduation of risk level

The signal word classifies the hazard.
Instructions for preventing the hazard are identified by an arrow (➡).

## 2.3 Explanation of used symbols

**⚠ DANGER**

Indicates an imminent danger. If not avoided, death or severe injury will result.

**⚠ WARNING**

Indicates a possible danger. If not avoided, death or severe injury could result.

**⚠ CAUTION**

Indicates a possible danger. If not avoided, light or minor injuries could result.

**ATTENTION**

Indicates a possibly damaging situation. If not avoided, the system or something in its surroundings could be damaged.

**Recommendation for use:**

The symbol "Recommendation for use" indicates terms and/or conditions that strictly need to be observed to ensure optimised and/or zero-defect operation. Tips and suggestions for the efficient use of the device and software optimisation are also provided.

© ads-tec GmbH • Heinrich-Hertz-Str. 1 • 72622 Nürtingen

## 2.4 Symbols

| Symbol | Meaning |
|---|---|
| | Designation of batteries in accordance with § 13 of the German Battery Act (BattG). Batteries may not be disposed of with household waste, but must rather be disposed of separately. Used batteries must be returned to the point of sale or a disposal system. |
| | Labelling of electrical and electronic devices in accordance with § 7 of the German Electrical and Electronic Equipment Act (ElektroG). Electrical and electronic devices must not be disposed of with household waste, but must rather be taken to a collection point for waste electrical equipment. Such a collection point is generally operated by public waste management authorities, i.e., by municipalities. |
| | Symbol for the protective earth connection |

## 2.5 Data, figures and modifications

All data, text and figures were prepared to the best of our knowledge. They do not represent any assurance for the properties themselves. Despite taking utmost care, no liability can be assumed for accuracy, completeness and actuality of the information. Subject to changes.

## 2.6 Trademarks

It is noted that any software and/or hardware trademarks and any company brand names mentioned in this documentation are all subject to the general trademark protection rights.
StoraXe® and Big-LinX® are registered trademarks of ads-tec.
All other third-party trademarks used are hereby acknowledged.
In the case of infringement of trademark rights, ads-tec reserves the right to exercise all rights.

## 2.7 Copyright

This instruction manual is protected by copyright. For the authorised user, simple usage rights are granted within the scope of the intent of the contract. Any modified use or exploitation of the provided content, particularly duplication, modification or publishing in whatever form is permitted only with the prior consent of ads-tec.
In the case of copyright infringement, ads-tec reserves the right to exercise all rights.

## 2.8 Standards

This device is compliant with the provisions and safety objectives of the following EU directives:

**Standards**

- This device is compliant with the CE mark test requirements as defined in the European test standards EN 55022 and EN 61000-6-2
- This device is compliant with the DIN EN 60950 (VDE0805, IEC950) testing specifications on “Information technology equipment – Safety"
- This device is compliant with the DIN EN 60068-2-6 testing specifications (sinusoidal vibration)
- This unit is compliant to the DIN EN 60068-2-27 (shock and bump) testing specification

Fulfilled shock and vibration standards only in connection with VESA mounting.

**Recommendation for use:**

A corresponding declaration of conformity is available for competent authorities at the manufacturer and can be viewed upon request.

For full compliance with the EMC legislation, all components and cables used for device connection must also be compliant with these requirements. It is therefore necessary to employ BUS and LAN cables with shielded connectors and these must be installed as per the instructions contained in the instruction manual.

# 3 Operating and safety instructions

The device operates under electrical voltage and contains highly sensitive components. Intervention by the user is required only for connecting the power supply lines. Should any further modifications be required, it is necessary to consult either with the manufacturer directly or with service personnel authorised by the manufacturer. The device must be de-energised during work. Appropriate measures must be taken to prevent electrostatic discharges on components. If the device is opened up by an unauthorised person, the user may be subject to hazards and the warranty is invalidated.

**General information**

- Assembly, commissioning and operation may only be performed by qualified and trained personnel
- The safety notices and the instruction manual are to be observed by all persons who work with the device
- At the installation site the valid guidelines and regulations for accident prevention must be observed
- The instruction manual contains the most important information for safely operating the device
- Appropriate storage, proper transport, installation and commissioning, as well as careful operation are prerequisites for ensuring safe and proper operation of the device

**Recommendation for use:**

Only the original ads-tec firmware / software is allowed for any of the settings and features described in this instruction manual. Loading of any firmware / software that has not been released by ads-tec invalidates the warranty.

© ads-tec GmbH • Heinrich-Hertz-Str. 1 • 72622 Nürtingen

## 3.1 Safety instructions

**ATTENTION**

To prevent damage to the device, all cable lines (power supply, interface cables) must be only be connected while the device is switched off.

**ATTENTION**

All installation work performed on the device must be performed only under safe, secure and de-energised conditions.

**⚠ CAUTION**

**Warning - hot surface**

→Protective gloves must be worn when handling devices with ambient temperatures of 50 °C and higher.

→Disregarding this warning can result in burn injuries or damage to property.

**Recommendation for use:**

Always adhere to the safety measures applicable when handling components at risk of being damaged by electrostatic discharges.

(DIN EN 61340-5-1 / DIN EN 61340-5-2)

## 3.2 Operating location

This device is designed for industrial use. Make certain that the specified environmental conditions are maintained at all times. Use in non-specified environments, i.e., on board ships, in explosive atmospheres or at extreme elevations, is prohibited.

**ATTENTION**

**Risk of short circuit!**

To prevent the formation of water condensate, the device may be turned on only after it has reached the specified ambient temperature. This also applies if the device is exposed to extreme temperature fluctuations.

To avoid overheating in operation:

→The device must not be exposed to direct radiation by sunlight or any other light or heat source.

## 3.3 Damage due to improper use

Should the control system have evident signs of damages caused, e.g., by improper operation or storage conditions or due to improper use or handling, the device must be shut down immediately. Ensure that it is secured against being started up accidentally.

## 3.4 Warranty / repairs

During the device warranty period, any repairs must only be performed by the manufacturer or by service personnel that has been authorised by the manufacturer.

## 3.5 Intended use

The Industrial Firewall was specifically designed for the IT security of plant and machinery and the secure remote maintenance via Internet.

The following applications are realized by the Industrial Firewall:

Remote maintenance, NAT routers, wireless routers, firewall machines, Gigabit Router.

Application-specific applications are buildable on various software development kits (SDK).

The unit must only be installed and operated within the allowed specifications.

The use of an unspecified environment is prohibited.

## 3.6 Improper use

Operation other than or beyond that described for the device shall be deemed improper use.

The device is not allowed to be used to control vehicles or for applications for which further approvals beyond the manufacturer's declaration are necessary, e.g. applications with explosion hazard, medical technology, shipping industry.

The device must not be put into operation in the case of transport damage or nonconformity with the specifications and, if necessary, must be taken out of operation in the case of changing conditions.

In the case of improper use, ads-tec shall not accept responsibility or liability for injury or damage that is directly or indirectly attributable to the handling of the device.

Should the device have evident signs of damages caused, e.g., by improper operation or storage conditions or due to improper use or handling, it must be shut down immediately. Ensure that it is secured against being started up accidentally.

© ads-tec GmbH • Heinrich-Hertz-Str. 1 • 72622 Nürtingen

# 4 Introduction

The Industrial Firewall forms the link between the IT world and the automation system and meets the requirements of IT security as well as of the maintenance personnel in the production facility. It allows the network in plants and machines as well as access to this network to be monitored. Its fundamental protective mechanism is situation-dependent and physical network disconnection. It additionally provides safe access for service purposes, allows traffic shaping and can use existing virus scanners.

**Recommendation for use:**

For the efficient online configuration of your ads-tec devices, it is possible to download the current version of the free tool "IDA light" on the company's homepage http://www.ads-tec.de. With this tool you can, for example, define individual parameters or whole groups of parameters on a master device and transfer them to a limited selection or to all ads-tec devices of same design and version without having to make these time-consuming configurations on each individual device. You can also assign sequential IP addresses for your ads-tec devices in just a few steps.

With IDA light you can comfortably provide own groups of parameters according to your specific requirements and modify them at any time.

## 4.1 Cut & Stop

In critical start-up or production phases, the Ethernet uplink can be disconnected via a 24 V input. This makes deliberate or inadvertent manipulation absolutely impossible.

The uplink is reconnected via the same input. This function makes integration in an automation concept extremely easy.

## 4.2 Alarming

In the event of rule violation, the alarm signal is sent to the control system via an output. Necessary measures can be automated directly.

Acoustic indicator lights can, for example, signal the alarm condition.

Automatically sent emails can warn of rule violation.

## 4.3 Eventlog

If the firewall is disconnected from the power supply, a non-volatile event log saves all events.

The event log can be read out both locally and via a central syslog server.

## 4.4 UMTS modem

Connection is possible via UMTS/GSM using the integrated UMTS modem.

© ads-tec GmbH • Heinrich-Hertz-Str. 1 • 72622 Nürtingen

## 4.5 Equipment versions

The device is available in five equipment versions.

| Equipment version | WAN | LAN | 3G/UMTS | 4G/LTE |
|---|---|---|---|---|
| IRF2200 | RJ45 | RJ45 | - | - |
| IRF2210 | RJ45 | RJ45 | x | - |
| IRF2220 | RJ45 | RJ45 | | x |
| IRF2601 | RJ45 | RJ45 | - | - |
| IRF2621 | RJ45 | RJ45 | - | x |

RJ45 is an Ethernet standard frequently implemented in telecommunication applications. The transmission method is equivalent to 10/100/1000Mbits half & full DUPLEX 1000 BASE-TX.

## 4.6 Scope of delivery

The contents of the package must be checked for completeness:

**Scope of delivery**

- 1 x Industrial Router Firewall with top-hat rail holder
- 1 x 3-pin plug
- 2 x 4-pin plug
- 4 x rubber feet
- Ethernet cable 1m red
- Quick Start-Up Guide / Quick Assembly Guide
- GNU General Public License

## 4.7 Environmental conditions

The device can be put into operation and used under the following conditions. Failure to observe any one of these conditions will invalidate the warranty. ads-tec cannot be held liable for any damages arising from improper use and handling.

- Ambient temperature

| | |
|---|---|
| in operation | -20°C ... + 70°C |
| for storage | -20°C ... + 85°C |

- Humidity

| | |
|---|---|
| in operation | 5 to 90%, without condensate |
| for storage | 5 to 90%, without condensate |

# 5 Assembly

## 5.1 External dimensions IRF22xx

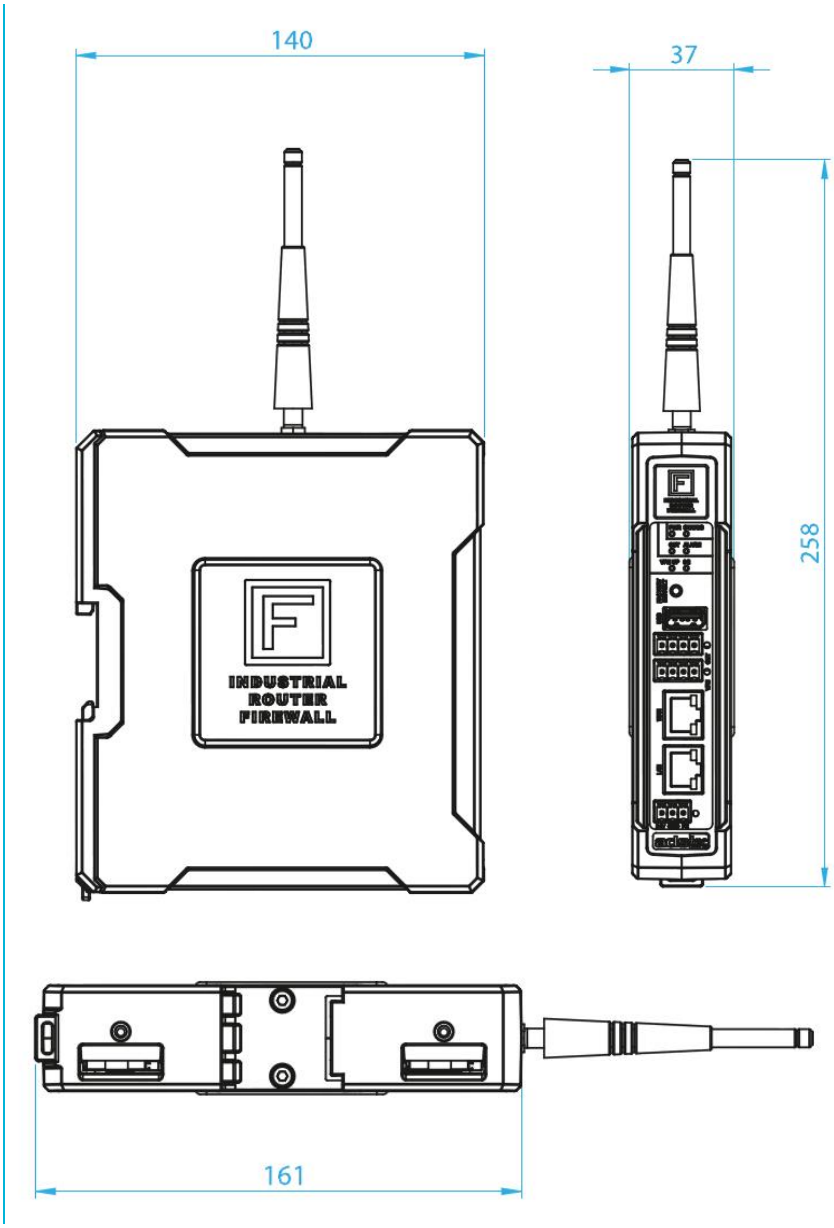



Fig. 1:

## 5.2 External dimensions IRF26xx

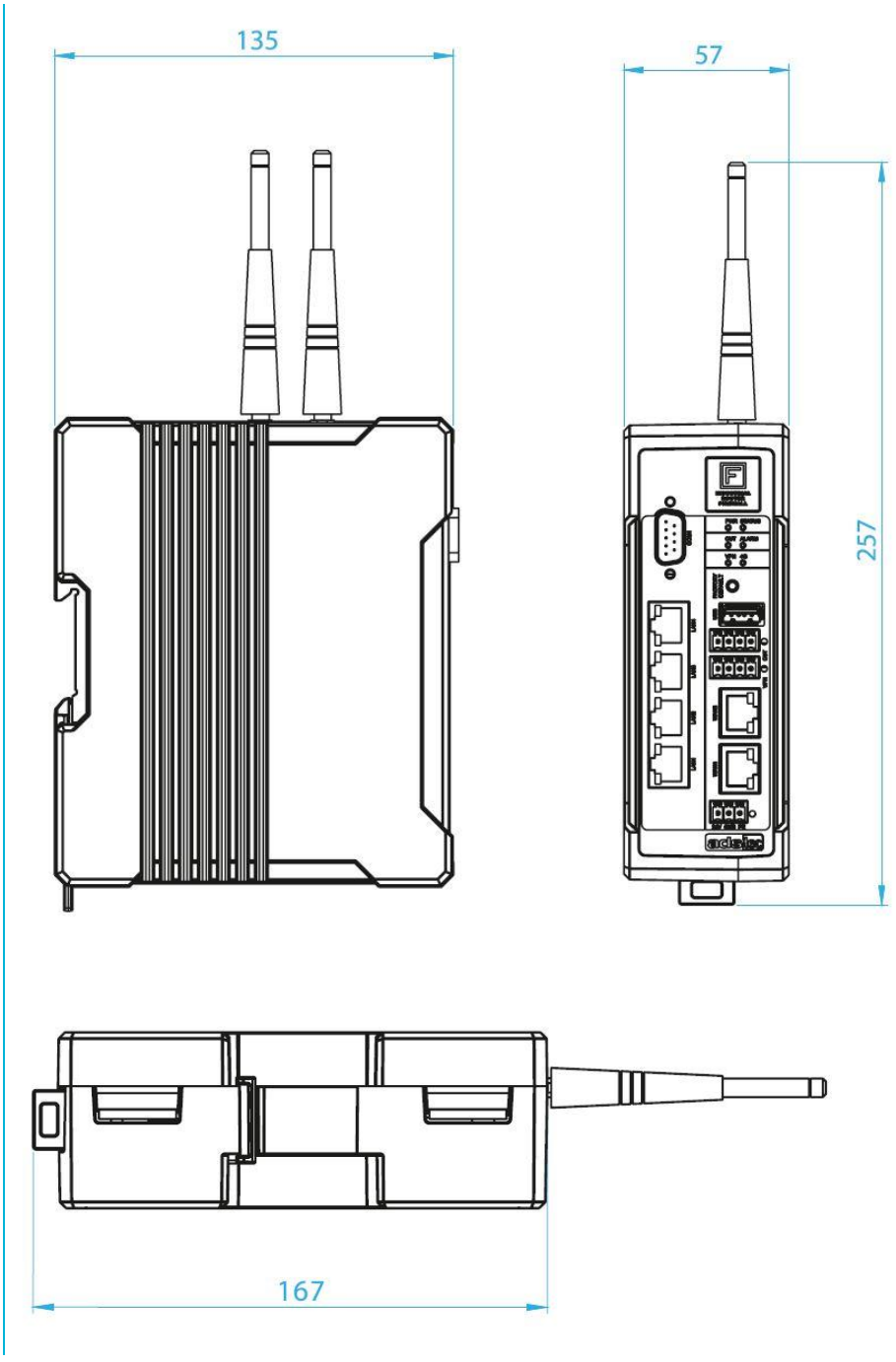



Fig. 2:

## 5.3 Mounting options

The device is designed for table mounting, wall mounting and for top-hat rail mounting.

### 5.3.1 Table mounting

Remove the protective foil on the rubber feet and attach them at the marked positions.

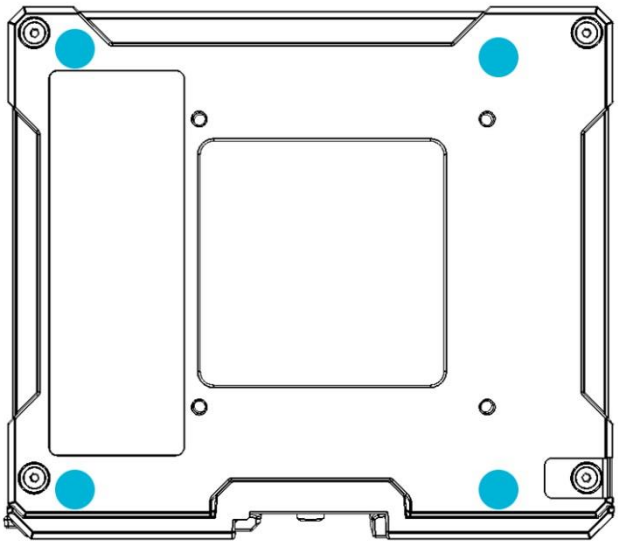


Fig. 3:

### 5.3.2 Wall mounting

Alternatively, the device can be mounted according to the VESA 75 standard on a suitable mounting surface.

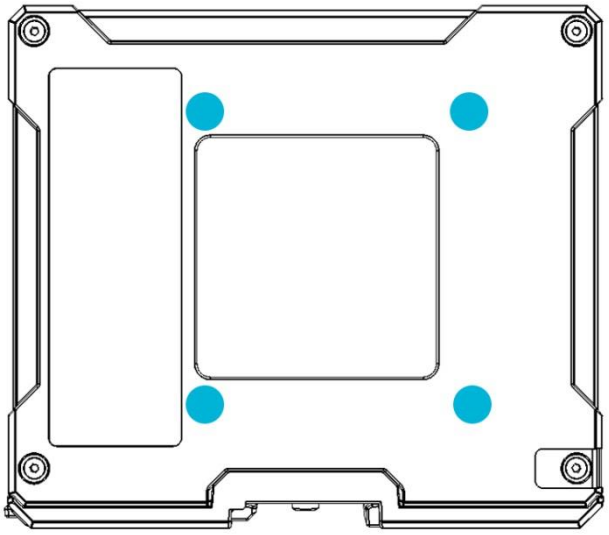


Fig. 4:

## 5.3.3 Top-hat rail mounting

The device is placed on the top-hat rail obliquely. (**1**) and secured to the bottom by pressing lightly (**2**). The device must noticeably engage in the top-hat rail.

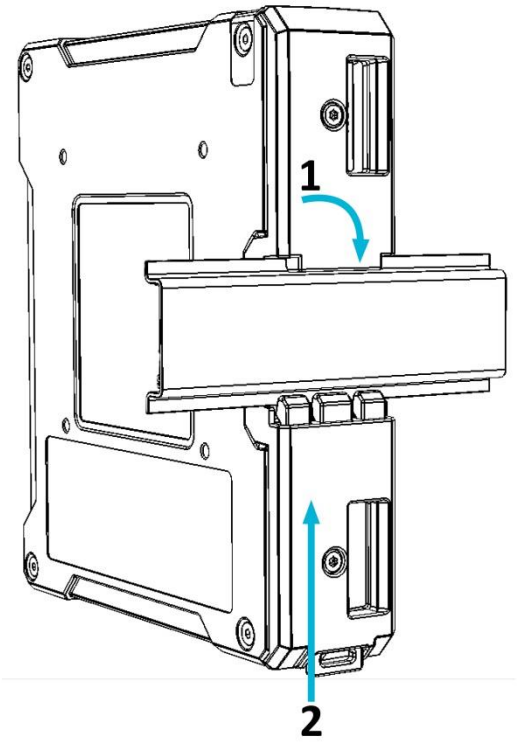



Fig. 5:

To release the device from the top-hat rail, proceed in the reverse order.

**Recommendation for use:**

When removing, take care not to damage the top-hat rail adapter of the device.

# 6 System features

## 6.1 General LED status display

The status of the various interfaces is displayed via the integrated LEDs. Status diagnostics of the firewall can thereby be made at the installation site.

The status indicators of the device are shown in the overview.

| LED status | Representation |
|---|---|
| Off | |
| Green | |
| Flashing green | |
| Red | |
| Orange | |
| Flashing orange | |

© ads-tec GmbH • Heinrich-Hertz-Str. 1 • 72622 Nürtingen

## 6.1.1 PWR / CUT & ALARM / VPN 3G

Fig. 6:

| | Signal | Action |
|---|---|---|
| **PWR (1)** | ☐ | This device is not supplied with voltage |
| | ◧ | Indicates POWER ON, flashes during booting |
| | ■ | The device is supplied with voltage via POWER and is ready for operation |
| **Status (1)** | ☐ | This device is not supplied with voltage |
| | ■ | Error during the boot-up process / recovery image |
| **CUT (2)** | ☐ | The CUT interface is not supplied with voltage |
| | ■ | A CUT was triggered, LED illuminates and Link is deactivated |
| **Alarm (2)** | ☐ | No alarm was triggered |
| | ■ | An alarm was triggered |
| **VPN Up (3)** | ☐ | No VPN tunnel is active |
| | ■ | The tunnel activated via VPN key is active. |
| **3G / 4G (3)** | ☐ | No active GSM/3G/UMTS connection |
| | ◧ | Network search on 1Hz |
| | ◧ | Log-in declined on 2Hz |
| | ■ | Logged in, offline |
| | ◧ | Logged in, standby (dial-on-demand) |
| | ■ | Logged in, online |

## 6.2 Operational LED status indicators

### 6.2.1 Behaviour of the status indicators during the boot-up process

The boot-up process starts as soon as the firewall is supplied with a power source. The PWR LED is used to check whether the firewall is booting. The PWR LED illuminates green and flashes slowly.

### 6.2.2 Behaviour of the status indicators when resetting to default settings

The **Factory Default** pushbutton is used to reset the firewall back to the default factory settings at any time, independent of its configuration.

To reset the firewall to the default settings, the Factory Default pushbutton must be pressed prior to the boot-up process and held down for approx. 10 seconds during the boot-up process. The PWR LED flashes rapidly while resetting to factory settings.
As soon as the PWR LED lights up constantly, it is possible to access the web interface.

### 6.2.3 Behaviour of the status indicators during a firmware update

A firmware update can be performed via the web interface.

The PWR LED flashes rapidly during the firmware update.
The actual update procedure takes a few minutes.

Initialisation begins after the update procedure has been performed successfully.
The PWR LED flashes slowly during this phase.

## 6.3 Interface overview IRF22xx

Fig. 7:

The device is equipped with the following interfaces (front):

1. Power (24V DC power supply (3-pin plug))
2. LAN RJ45
3. WAN RJ45
4. VPN (4-pin plug)
5. CUT & ALARM (4-pin plug)
6. USB 2.0
7. Factory Default pushbutton

The device is equipped with the following interfaces (rear):

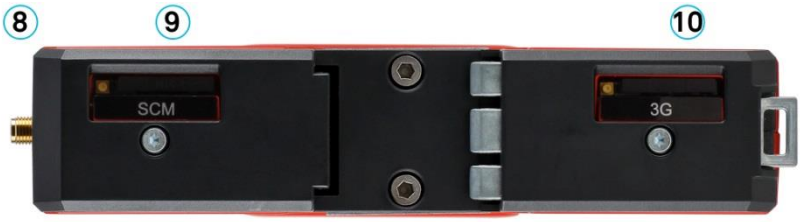



Fig. 8:

8. UMTS antenna
9. SCM card reader (read in/out the ads-tec memory cards)
10. 3G card reader (UMTS functionality)

**Recommendation for use:**
All input voltages can be connected redundantly

## 6.4 Interface overview IRF26xx

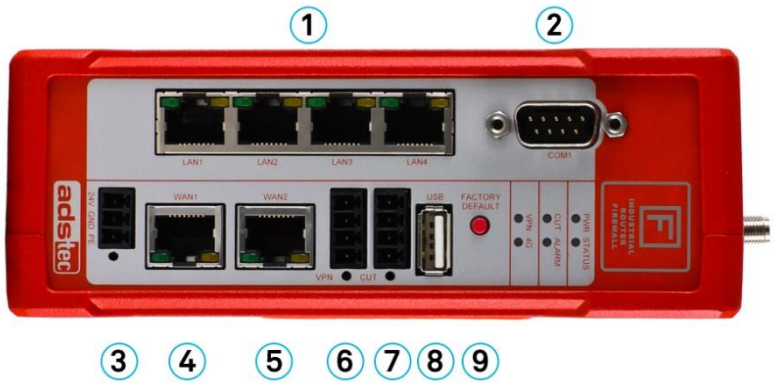



Fig. 9:

The device is equipped with the following interfaces (front):

1. LAN RJ45 switch (4 ports)
2. COM port
3. Power (24V DC power supply (3-pin plug))
4. WAN 1 RJ45
5. WAN 2 RJ45
6. VPN (4-pin plug)
7. CUT & ALARM (4-pin plug)
8. USB 2.0
9. Factory Default pushbutton

The device is equipped with the following interfaces (rear):

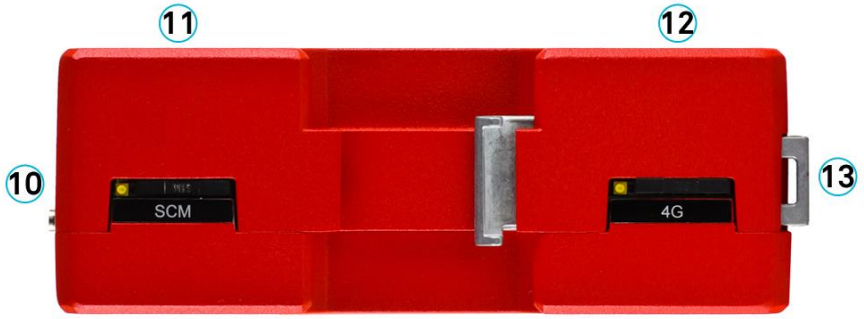



Fig. 10:

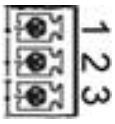
10. UMTS antenna
11. SCM card reader (read in/out the ads-tec memory cards)
12. 4G card reader (UMTS functionality)
13. Top-hat rail lock

**Recommendation for use:**
All input voltages can be connected redundantly

## 6.4.1 POWER SUPPLY 24V DC

This power supply is fed to the device via a lead-through terminal.
(The figure shows the socket inside the device)

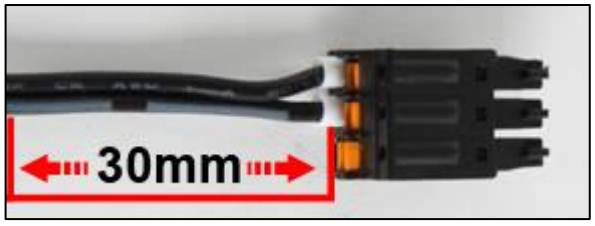
| PIN number | Signal name |
|---|---|
| 1 | 24V DC |
| 2 | GND |
| 3 | PE |




Technical data of the power adapter

- Input voltage range: 7 V DC to 36 V DC

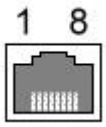
**Recommendation for use:**
The distance between the casing and plug should be at least approx. 30mm amount.




Use a flexible cable with a wire cross section of 0.5 mm² / AWG20 and appropriate ferrules to maintain the mechanical force on the connector, as low as possible.

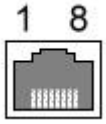
## 6.4.2 LAN (RJ45)

| PIN number | Signal name |
|---|---|
| 1 | D1+ |
| 2 | D1- |
| 3 | D2+ |
| 4 | D3+ |
| 5 | D3- |
| 6 | D2- |
| 7 | D4+ |
| 8 | D4- |




## 6.4.3 WAN (RJ45)

| PIN number | Signal name |
|---|---|
| 1 | D1+ |
| 2 | D1- |
| 3 | D2+ |
| 4 | D3+ |
| 5 | D3- |
| 6 | D2- |
| 7 | D4+ |
| 8 | D4- |




## 6.4.4 VPN

This VPN connection is fed to the device via a lead-through terminal (The figure shows the socket inside the device).

| PIN number | Signal name |
|---|---|
| 1 | 24V DC |
| 2 | IN (VPN Key) |
| 3 | OUT (VPN LED) |
| 4 | GND |

## 6.4.5 CUT & ALARM

This Cut & Alarm connection is fed to the device via a lead-through terminal
(The figure shows the socket inside the device).

| PIN number | Signal name |
|---|---|
| 1 | 24V DC |
| 2 | IN (CUT) |
| 3 | OUT (ALARM) |
| 4 | GND |

## 6.4.6 SERIAL INTERFACE COM (RS232)

The serial interface is used for digital data transmission. The RS232 interface can be connected by using a commercially available 9-pin SUB-D cable.

| PIN number | Signal name |
|---|---|
| 1 | DCD |
| 2 | RxD |
| 3 | TxD |
| 4 | DTR |
| 5 | GND |
| 6 | DSR |
| 7 | RTS |
| 8 | CTS |
| 9 | RI |

**Recommendation for use:**
This interface is not electrically isolated.

## 6.4.7 USB CONNECTIONS

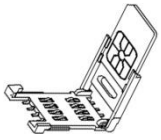
The USB interfaces are used for connecting peripherals with USB connection. The interface complies with the USB 2.0 standard.

| PIN number | Signal name |
|---|---|
| 1 | VDC |
| 2 | D - |
| 3 | D + |
| 4 | GND |

## 6.4.8 SMARTCARD READER IN ACCORDANCE WITH ISO 7816

The SIM card reader is used to store configuration data.

| PIN number | Signal name |
|---|---|
| 1 | VCC 5 volt |
| 2 | RESET |
| 3 | CLOCK |
| 4 | NC |
| 5 | GND |
| 6 | NC |
| 7 | I/O |
| 8 | NC |



**Recommendation for use:**

Configurations of a device can be saved using the SIM card. If service is required, the saved configuration can be transferred to the new device. The setup procedure does not need to be repeated.

Further information can be found at:

http://www.ads-tec.de/industrial-it/firewalls-und-router/irf2000-serie/download.html

Complex IT infrastructures with a large number of devices can be managed, monitored and controlled easily and conveniently using Big-LinX.

The SIM card is available in the package with Big-LinX or as an individual accessory part.

Further information on Big-LinX can be found at:

http://www.ads-tec.de/industrial-it/cloud-big-linx/big-linx.html

# 7 Putting into operation

## 7.1 Initial configuration

**Recommendation for use:**
For the initial configuration, a connection to a PC is required.

Connecting the 24V DC power source

The device can be powered with a 24V DC (3-pin plug) power source. The corresponding plug is included in the scope of delivery of the device.

Connect the device with the appropriate power source.

Connecting the RJ45 network cable

When placing into operation for the first time, a connection is required between the device and a PC via an RJ45 network cable.

Connect the device to a PC:

Device LAN connection ←→ PC LAN connection

© ads-tec GmbH • Heinrich-Hertz-Str. 1 • 72622 Nürtingen

## 7.2 Manual configuration of the network adapter

**Recommendation for use:**
The procedure described in the following was prepared using the Microsoft Windows operating system as an example. If you are using another operating system, the paths and properties described here may vary.

Open the properties map for your network adapter. The path is as follows:

**Network connections**> **LAN connection**> **Properties** (right mouse-key).

In the dialogue tab that appears, select option**: Internet protocol (TCP/IP)** and then click on **Properties**.

In the following window, select: **Use the following IP address**

Access to the device is only enabled if the following parameters are entered as the fixed IP address or if the computer is located in the same subnet space:

**IP address: 192.168.0.100**

**Recommendation for use:**
The last set of digits must be a number between 1 and 253. In the example, "100" has been selected.

Once the IP address has been entered, the **subnet mask address** must be entered. Click on the **Subnet mask** field and the correct address is entered automatically.

**Subnet mask: 255.255.255.0**

Confirm your entries by clicking on **OK**.

## 7.3 Settings for use with Internet Explorer 8

**Recommendation for use:**
If Internet Explorer 8 is used, issues with the web interface may occur. If you experience any problems, the IP address of the device must be entered in the local intranet list in order to display the web interface correctly.

Open Internet Explorer and navigate to the Security tab under the following path:

**Tools→Internet options→Security**

Switch to the **Local Intranet** icon and click on **Sites**.

Then click on **Advanced**.

In the **Add this website to the zone** address line, enter the device **IP address** and confirm with **Add**.

Default IP address: **http://192.168.0.254**

The **IP address** now appears in the list under **Websites**.

# 7.4 Calling up the device web interface

To access and open the device web interface, start up your web browser. In the browser's address bar, enter the following IP address and then confirm with **Enter:**

**http://192.168.0.254**

## Login

Once the IP address has been entered with success, the login prompt appears.
The default settings are to be entered in the login prompt.

The default configuration on delivery is:

User name: **admin**

Password: **admin**

Confirm your entries by clicking on **OK**.

**Recommendation for use:**

If the login prompt does not appear, check to ensure that the device has been connected via a RJ45 connection cable.
Otherwise, connect the device to a PC

(Device LAN connection ←→ PC LAN connection).

If there is still no connection to the firewall login screen, check the proxy and local firewall settings. Often, local subnet addresses (e.g. 192.168.x.x) are also diverted to a proxy server.
In this case, it is possible to select the "Bypass proxy server for local addresses" option to enter the address in question.

The device web interface then appears

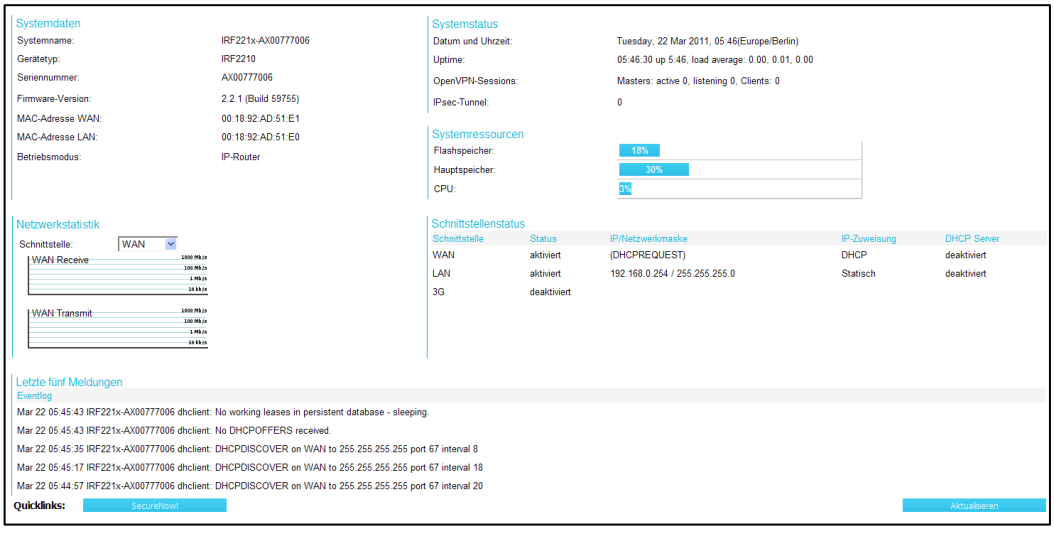

Systemdaten
Systemname: IRF221x-AX00777006
Gerätetyp: IRF2210
Seriennummer: AX00777006
Firmware-Version: 2.2.1 (Build 59755)
MAC-Adresse WAN: 00:18:92:AD:51:E1
MAC-Adresse LAN: 00:18:92:AD:51:E0
Betriebsmodus: IP-Router
Systemstatus
Datum und Uhrzeit: Tuesday, 22 Mar 2011, 05:46(Europe/Berlin)
Uptime: 05:46:30 up 5:46, load average: 0.00, 0.01, 0.00
OpenVPN-Sessions: Masters: active 0, listening 0, Clients: 0
IPsec-Tunnel: 0
Systemressourcen
Flashspeicher: 18%
Hauptspeicher: 30%
CPU: 3%
Netzwerkstatistik
Schnittstelle: WAN
WAN Receive
WAN Transmit
Schnittstellenstatus
Schnittstelle Status IP/Netzwerkmaske IP-Zuweisung DHCP Server
WAN aktiviert (DHCPREQUEST) DHCP deaktiviert
LAN aktiviert 192.168.0.254 / 255.255.255.0 Statisch deaktiviert
3G deaktiviert
Letzte fünf Meldungen
Eventlog
Mar 22 05:45:43 IRF221x-AX00777006 dhclient: No working leases in persistent database - sleeping.
Mar 22 05:45:43 IRF221x-AX00777006 dhclient: No DHCPOFFERS received.
Mar 22 05:45:35 IRF221x-AX00777006 dhclient: DHCPDISCOVER on WAN to 255.255.255.255 port 67 interval 8
Mar 22 05:45:17 IRF221x-AX00777006 dhclient: DHCPDISCOVER on WAN to 255.255.255.255 port 67 interval 18
Mar 22 05:44:57 IRF221x-AX00777006 dhclient: DHCPDISCOVER on WAN to 255.255.255.255 port 67 interval 20
Quicklinks:
SecureNow!
Aktualisieren

Fig. 11:

# 8 Technical details

| Device data | IRF2000 series |
|---|---|
| **Operating system** | Embedded LinuX |
| **Configuration protocol** | http, https |
| **Power supply** | 24V DC +/- 20%, redundant voltage input |
| **Interfaces** | IN/OUT (electrically isolated)<br>WAN RJ45 connections 10/100/1000MBit/s Autocrossover<br>LAN RJ45 connections 10/100/1000MBit/s Autocrossover |
| **External device dimensions** | 135 mm x 163mm x 35mm (IRF22xx)<br>136mm x 163mm x 57mm (IRF26xx) |
| **Weight** | approx. 1 kg |
| **Protection class** | IP20 |
| **Max. current consumption** | max. 600 mA at 24V DC |
| **Ambient temperature** | in operation -20°C ... + 70°C<br>for storage -20°C ... + 85°C |

**Recommendation for use:**
Detailed information about the device can be found on our website
**http://www.ads-tec.de**

# 9 Service & support

ads-tec and its partner companies offer you comprehensive maintenance and support services, ensuring quick and competent support should you have any questions or concerns with regard to ads-tec products and equipment.

Because ads-tec products are also used by partner companies, these devices may have customised configurations. Should any questions arise with regard to these specific configurations and software installations, please contact them as ads-tec will not be able to answer such questions.

ads-tec does not provide support services for any device that was not purchased directly from ads-tec. In this case, maintenance and support is provided by the partner company.

## 9.1 ads-tec support

The ads-tec support team is available for inquiries from direct customers between 8:30am and 5:00pm, Monday to Friday.

The support team can be reached via phone, fax or e-mail:

Phone: +49 7022 2522-202

Fax: +49 7022 2522-400

Email: support@ads-tec.de

## 9.2 Company address

ads-tec GmbH
Heinrich-Hertz-Str.1
72622 Nürtingen
Germany

Phone: +49 7022 2522-0

Fax: +49 7022 2522-400

Email: mailbox@ads-tec.de

Web: www.ads-tec.de